

Appl. No. 10/049,950
Amdt. Dated March 8, 2004
Reply to Office Action of January 6, 2004

LISTING OF CLAIMS

1. (Currently Amended) An electrical connector comprising one or more connector modules, each said connector module comprising
 - at least one contact support and
 - a multiplicity of contact elements connected to the contact support and extending along the surface thereof, the contact elements being connected to the contact supports by having plastics material injection-molded around part thereof,
 - wherein the contact supports and the contact elements being supported by the same are connected to each other in non-releasable manner.
2. (Original) An electrical connector according to claim 1, wherein the contact elements are constituted by metal strips.
3. (Original) An electrical connector according to claim 1, wherein the front ends of the contact supports are portions thereof without contact elements.
4. (Original) An electrical connector according to claim 3, wherein the front ends of the contact supports are provided with tapers suitable for centering with respect to other contact elements.
5. (Original) An electrical connector according to claim 1, wherein the contact elements project beyond the rear end of the contact supports.
6. (Original) An electrical connector according to claim 5, wherein the contact elements have a bent or kinked section in the portion thereof extending beyond the rear end of the contact supports.

7. (Currently Amended) An electrical connector comprising one or more connector modules, each said connector module comprising

at least one contact support and

a multiplicity of contact elements connected to the contact support and extending along the surface thereof, the contact elements projecting beyond the rear end of the contact supports, and the contact elements have a bent or kinked section in the portion thereof extending beyond the rear end of the contact supports

wherein the contact supports and the contact elements being supported by the same are connected to each other in non-releasable manner, and wherein the bent or kinked sections of the contact elements in the assembled state of the electrical connector, come to lie in a cavity contained in said connector.

8. (Original) An electrical connector according to claim 7, wherein the contact element parts located on either side of the bent or kinked sections are movable relative to each other also in the assembled state of the electrical connector.

9. (Currently Amended) An electrical connector according to claim 7 ~~4~~, wherein the contact elements, in the region in which they are supposed to establish contact with an associated contact element, have one or more protuberances or bulges acting as contact locations.

10. (Original) An electrical connector according to claim 9, wherein the portions of the contact elements having said protuberances or bulges are designed to be resilient.

11. (Currently Amended) An electrical connector according to claim 7 ~~4~~, wherein the contact elements are connected to the contact supports by having plastics material injection-molded around part thereof.

12. (Original) An electrical connector according to claim 1, wherein the contact supports have groove-like recesses at those locations where contact elements are to be provided thereon.

13. (Currently Amended) An electrical connector according to claim 12, wherein the contact elements are inserted into the groove-like recesses of the contact supports and, at the rear end of the contact supports, are connected to the contact support ~~by way of injection molding~~.

14. (Original) An electrical connector according to claim 12, wherein the contact elements are designed and mounted to the contact supports such that the parts thereof extending through the groove-like recesses, which are not injection-molded to the contact supports, are resiliently urged against the bottom of the groove-like recess through which they extend.

15. (Currently Amended) An electrical connector according to claim 18 4, wherein the contact support is injection-molded to the contact elements.

16. (Original) An electrical connector according to claim 1, wherein the assembled state of the electrical connector, a predetermined section of the connector modules is inserted between other components of the electrical connector and thereby is held there.

17. (Original) An electrical connector according to claim 16, wherein said predetermined section of the connector modules and the other components of the electrical connector receiving said section therebetween have spaces provided therebetween.

18. (Currently Amended) An electrical connector comprising one or more connector modules, each said connector module comprising

at least one contact support and

a multiplicity of contact elements connected to the contact support and extending along the surface thereof,

wherein the contact supports and the contact elements being supported by the same are connected to each other in non-releasable manner, and ~~An electrical connector according to claim 1, wherein the connector modules, in the assembled state of the electrical connector, are movable relative to each other and/or relative to other components of the electrical connector.~~

19. (Currently Amended) An electrical connector according to claim 18 ~~1~~, wherein the connector modules are individually or commonly enclosed on the sides thereof by parts of a housing.

20. (Original) An electrical connector according to claim 19, wherein the housing parts enclosing the connector modules project beyond the front end of the connector modules.

21. (Currently Amended) An electrical connector comprising one or more connector modules, each said connector module comprising

at least one contact support and

a multiplicity of contact elements connected to the contact support and extending along the surface thereof,

the connector modules are individually or commonly enclosed on the sides thereof by parts of a housing and the housing parts enclosing the connector modules project beyond the front end of the connector modules,

wherein the contact supports and the contact elements being supported by the same are connected to each other in non-releasable manner, and An electrical connector according to claim 20, wherein the housing parts projecting beyond the front end of the connector modules are provided with tapers suitable for centering with respect to the housings of other electrical connectors.

22. (Currently Amended) An electrical connector according to claim 21 4, characterized in that, in mating the electrical connector with a complementary, second electrical connector, the connector modules meet each other only after having been pre-centered.

23. (Original) An electrical connector according to claim 22, wherein the pre-centering is effected by centering of housing parts meeting each other therebefore.

24. (Original) An electrical connector according to claim 1, wherein said connector is designed to be soldered to a circuit board using the PSGA technology.

25. (Currently Amended) An electrical connector comprising one or more connector modules, each said connector module comprising
at least one contact support and
a multiplicity of contact elements connected to the contact support and
extending along the surface thereof,
wherein the contact supports and the contact elements being supported
by the same are connected to each other in non-releasable manner, and ~~An electrical connector according to claim 1, wherein said connector is designed to be soldered to a circuit board using the BGA technology.~~

26. (Original) An electrical connector according to claim 25, wherein the balls are arranged remote from the locations where the contact elements reach the section of the electrical connector to be soldered to the circuit board, and that the respective locations and the associated balls are connected to each other via conductive tracks.

27. (Original) An electrical connector according to claim 25, wherein the balls are arranged at the locations where the contact elements reach the section of the electrical connector to be soldered to the circuit board, and in that the arrangement of the respective locations is selected to be different from the arrangement of the contact elements on the contact supports.